

CLAIMS

Claim 25 (Currently Amended): A lightweight two-part backing plate for a drum brake assembly, the backing plate including:

a shield plate for supporting and shielding components of a drum brake assembly, the shield plate having a thickness of 0.8 mm to 1.8 mm and being formed of a damped steel comprising:

a first and second steel layer, the thickness of the first and second steel layer being approximately equal, and

an intermediate layer located between the first and second layer, the intermediate layer being formed of viscoelastic polymer; and

an abutment plate attached to the shield plate and ~~located~~ mounted on an interior portion of the shield plate, the abutment plate having a thickness of 3 mm to 6 mm and being configured to resist braking forces, the abutment plate comprising:

an upper portion that is generally square and includes a plurality of mounting features for mounting the abutment plate to an axle housing of a vehicle,

a lower portion ~~having a shape shaped to generally correspond~~ correspond to an anchor block of the drum brake assembly and configured to engage and resist braking forces from brake shoes, and

an intermediate portion located between the upper and lower portion, wherein the width of the intermediate portion or lower portion is less than the width of the upper portion,

wherein the combination of the shield plate and abutment plate reduce vibration of the drum brake assembly while providing sufficient resistant braking forces applied by the brake shoes.

Claim 26 (Previously Presented): The backing plate of claim 25, wherein the width of the intermediate portion and the lower portion is less than the width of the upper portion.

Claim 27 (Previously Presented): The backing plate of claim 26, wherein the width of the intermediate portion is less than the width of the lower portion.

Claim 28 (Previously Presented): The backing plate of claim 25, wherein the abutment plate includes one or more anchors for resisting movement of brake shoes of the drum brake assembly.

Claim 29 (Previously Presented): The backing plate of claim 25, wherein the abutment plate has a thickness of about 4 mm.

Claim 30 (Previously Presented): The backing plate of claim 29, wherein the shield plate has a thickness of about 1.2 mm.

Claim 31 (Previously Presented): The backing plate of claim 30, wherein the abutment plate includes sides having a length of about 100 mm.

Claim 32 (Previously Presented): The backing plate of claim 25, wherein the abutment plate defines a mounting hole for receiving an antilock braking sensor.

Claim 33 (Previously Presented): The backing plate of claim 25, wherein the shield plate and the abutment plate are formed separately.

Claim 34 (Previously Presented): The backing plate of claim 25, wherein the shield plate is configured to support a hydraulic cylinder of the drum brake assembly.

Claim 35 (Currently Amended): A lightweight two-part backing plate for a drum brake assembly, the backing plate including:

a shield plate for supporting and shielding components of a drum brake assembly, the shield plate including a central portion and an outer circumferal lip

extending in a direction of an axis of the drum brake assembly, the shield plate having a thickness of about 1.2 mm and being formed of a damped steel comprising:

a first and second steel layer, the thickness of the first and second steel layer being approximately equal, and

an intermediate layer located between the first and second layer, the intermediate layer being formed of viscoelastic polymer; and

an abutment plate attached to the central portion of the shield plate and ~~located mounted~~ on a side of the central portion in which the circumferal lip extends, the abutment plate having a thickness of about 4 mm and being configured to resist braking forces, the abutment plate comprising:

an upper portion that is generally square and includes a plurality of mounting features for mounting the abutment plate to an axle housing of a vehicle,

a lower portion ~~having a shape shaped to generally correspond~~ correspond to an anchor block of the drum brake assembly and configured to engage and resist braking forces from brake shoes, and

an intermediate portion located between the upper and lower portion, wherein the width of the intermediate portion or lower portion is less than the width of the upper portion,

wherein the combination of the shield plate and abutment plate reduce vibration of the drum brake assembly while providing sufficient resistant braking forces applied by the brake shoes.

Claim 36 (Previously Presented) The backing plate of claim 35, wherein each side of the central portion of the shield plate is contoured to form a plurality of surfaces perpendicular to the axis of the brake drum assembly.

Claim 37 (Previously Presented) The backing plate of claim 36, wherein each side of the abutment plate is contoured to include a plurality of surfaces perpendicular to the axis of the brake drum assembly.

Claim 38 (Previously Presented) The backing plate of claim 37, wherein the plurality of surfaces of the abutment plate are located adjacent to at least one of the plurality of surfaces of the shield plate

Claim 39 (Previously Presented) The backing plate of claim 35, wherein the upper portion and lower portion of the abutment plate are located on different planes.

Claim 40 (Previously Presented) The backing plate of claim 35, wherein the shield plate defines an interior portion for attachment of drum brake assembly components and an exterior portion for shielding the drum brake assembly components.

Claim 41 (Previously Presented) The backing plate of claim 40, wherein the abutment plate is located on the interior portion of the shield plate.

Claim 42 (Currently Amended): A lightweight two-part backing plate for a drum brake assembly, the backing plate including:

a shield plate having an interior side for supporting components of a drum brake assembly and an exterior side for shielding the components of the drum brake assembly, the shield plate including a contoured central portion having a plurality of surfaces perpendicular to an axis of the drum brake assembly and an outer circumferal lip extending adjacent the interior side of the central portion and in a direction parallel to the axis of the drum brake assembly, the shield plate having a thickness of about 1.2 mm and being formed of a damped steel comprising:

a first and second steel layer, the thickness of the first and second steel layer being approximately equal, and

an intermediate layer located between the first and second layer, the intermediate layer being formed of viscoelastic polymer; and

an abutment plate attached to the central portion of the shield plate and ~~located~~ mounted on a side of the central portion in which the circumferal lip extends, the

abutment plate including a contoured portion having a plurality of surfaces adjacent to at least one of the plurality of surfaces of the shield plate and being perpendicular to the axis of the drum brake assembly, the abutment plate having a thickness of about 4 mm and being configured to resist braking forces, the abutment plate comprising:

an upper portion that is generally square and includes a plurality of mounting features for mounting the abutment plate to an axle housing of a vehicle,

a lower portion ~~having a shape shaped to~~ generally corresponding ~~correspond~~ to an anchor block of the drum brake assembly and configured to engage and resist braking forces from brake shoes, wherein the width of the lower portion is less than the width of the upper portion, and

an intermediate portion located between the upper and lower portion, wherein the width of the intermediate portion is less than the width of the upper portion and the lower portion,

wherein the lower portion includes an outer or inner surface that is non-planar with a corresponding outer or inner surface of the upper portion and wherein the intermediate portion includes an outer or inner surface that is non-planar with a corresponding outer or inner surfaces of either the upper portion or the lower portion,

wherein the shield plate defines an interior portion for attachment of drum brake assembly components and an exterior portion for shielding the drum brake assembly components and the abutment plate being located on the interior portion of the shield plate and being surrounded by at least a portion of the radially extending lip, and

wherein the combination of the shield plate and abutment plate reduce vibration of the drum brake assembly while providing sufficient resistant braking forces applied by the brake shoes.